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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,759

06/09/2006

Mark John Goulding

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3208

23599

7590

04/29/2008

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EXAMINER

WU, SHEAN CHIU

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

04/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,759	<b>Applicant(s)</b> GOULDING ET AL.	
	<b>Examiner</b> Shean C. Wu	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/9/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. Claim 20 provides for the use of a compound or polymerizable liquid crystal material, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 20 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

2. Claims 3, 5, 10, 16-18 and 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 3 and 5, the formula I1 does not have an antecedent basis and the notations in formula I1 are not defined.

In claim 10, the rings A<sup>1-3</sup> are not part of the formula I1.

In claims 16-17, the “or a polymerizable LC material” does not have an antecedent basis.

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In claim 18, the phrase “or a polymerizable LC material” and “polymer” does not have an antecedent basis.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

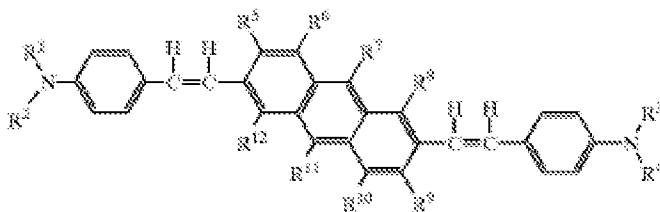
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 6-15, 18-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Tadashi et al. (US 6,242,116).

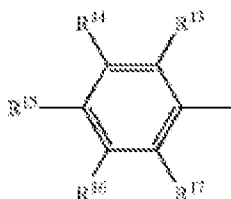
The reference discloses a new organic electroluminescence element comprises an organic lighting layer between an anode and a cathode. The organic lighting layer contains a specific distyryl compound represented by formula (1) for flat display panels including liquid crystal device or illumination (see abstract and second paragraph in background of invention). The

General Formula (1):



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provided that, in the general formula (1),  $R^{1-4}$  may be groups which are the same or different and, respectively, represent a phenyl group or an aryl group of the following general formula (2):



provided that, in the general formula (2),  $R^{14-17}$  represent a hydrogen atom provided that at least one of them is a saturated or unsaturated alkoxy group or an alkyl group, and at least one of  $R^{5-12}$  represents a cyano group, a nitro group or a halogen atom.

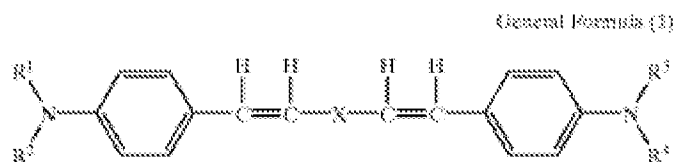
The reference further discloses an organic electroluminescent device comprising an organic thin film, which contains a luminescent material capable of emitting light through charge of an electric current, is formed between an optically transparent anode and a metallic cathode (see col. 1, lines 53-67). The anode 2 consists of a transparent electrode, for which ITO or the like may be used. The thin film made of an organic material or an organometallic compound may be provided between the anode 2 and the hole transport layer 6 or the hole transport layer 10 (see col. 13, lines 44-52). Therefore, the reference anticipates the claimed invention.

5. Claims 1-4, 6-15, 18-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishibashi et al. (US 6,495,274).

The reference discloses a new organic electroluminescence element comprises an organic lighting layer between an anode and a cathode. The organic lighting layer

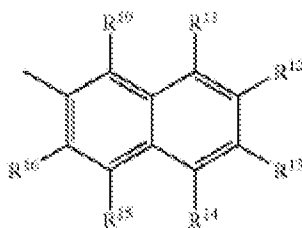
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contains a specific distyryl compound represented by formula (1) for display device including liquid crystal device (see abstract and third paragraph in background of the invention). The device ensures a high luminance and highly reliable stable red luminescent and realizes a stable full color display of high luminance. The general formula (1)

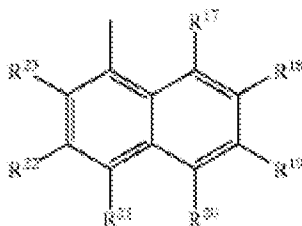


wherein  $R^1$ ,  $R^2$ ,  $R^3$ , and  $R^4$  may be the same or different and, respectively, represent an aryl group of the following general Formula (3) or (4)

General Formula (3):

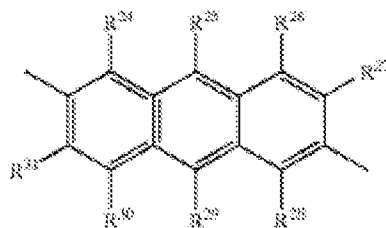


General Formula (4):

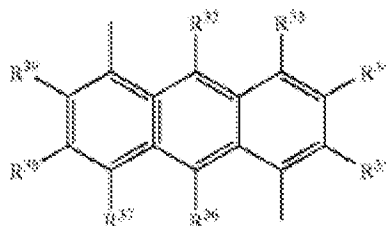


wherein  $R^{10}$ ,  $R^{11}$ ,  $R^{12}$ ,  $R^{13}$ ,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{17}$ ,  $R^{18}$ ,  $R^{19}$ ,  $R^{20}$ ,  $R^{21}$ ,  $R^{22}$  and  $R^{23}$  may be the same or different and independently represent, as defined above, a hydrogen atom, a saturated or unsaturated alkoxy group, an alkyl group, an amino group, an alkylamino group, a substituted or unsubstituted aryl group such as a phenyl group, or a hydroxyl group, and X represents a substituted or unsubstituted aryl group of the following general formula (5) or (6)

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General Formula (5)



General Formula (6)

wherein  $R^{24}$ ,  $R^{25}$ ,  $R^{26}$ ,  $R^{27}$ ,  $R^{28}$ ,  $R^{29}$ ,  $R^{30}$ ,  $R^{31}$ ,  $R^{32}$ ,  $R^{33}$ ,  $R^{34}$ ,  $R^{35}$ ,  $R^{36}$ ,  $R^{37}$ ,  $R^{38}$  and  $R^{39}$  may be the same or different and independently represent a hydrogen atom, a cyano group, a nitro group or a halogen atom.

Also, see structure formulae (7-1) to (7-9), which comprise the substituted anthracene core with polymerizable groups including vinyl groups.

The reference further discloses an organic electroluminescent device comprising an organic thin film, which contains a luminescent material capable of emitting light through charge of an electric current, is formed between an optically transparent anode and a metallic cathode (see col. 1, lines 47-61). The anode 2 consists of a transparent electrode, for which ITO or the like may be used. The thin film made of an organic material or an organometallic compound may be provided between the anode 2 and the hole transport layer 6 or the hole transport layer 10 (see col. 12, lines 48-56). Therefore, the reference anticipates the claimed invention.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C. Wu whose telephone number is 571-272-1393. The examiner can normally be reached on 10:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shean C Wu/  
Primary Examiner, Art Unit 1795

scw